

**THE DEVELOPMENT OF WEB-BASED LEARNING USING
INTERACTIVE MEDIA FOR SCIENCE LEARNING ON LEVERS IN
THE HUMAN BODY TOPIC**

RESEARCH PAPER

**Submitted as Requirement to Obtain Degree of *Sarjana Pendidikan* in
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THE HUMAN BODY TOPIC**

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Skripsi yang diajukan untuk memenuhi salah satu syarat memperoleh gelar
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DECLARATION

I do hereby declare that every aspect was written in this research paper entitled “The Development of Web-based learning Using Interactive Media for Science Learning on Levers in The Human Body Topic” genuinely results of my original idea, effort, and works. The theories, findings of experts, opinions, and others contained in this paper have been quoted or referenced based on scientific code from UPI and in accordance with scientific ethics that applies in scholarly society. This declaration is created truthfully and consciously. When an infringement towards scientific ethics subsequently is found or if there is a claim of any others towards the authenticity of this research paper, hence I am willing to responsible and accept academics sanctions correspond to the rules.

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ABSTRACT

Integrated curriculum is a popular way to develop 21st century skills, but most of the materials is written on the books separately. In the other hand, web-based learning technology is an online learning media that can be accessed anytime and anywhere on the web and using the internet connection. However, many educational websites do not apply the principles of effective learning. Besides, the traditional learning methods tend to be bored for the students. To remedy this deficiency, this study designed a website education use an interactive content to assist students in learning levers in the human body as one of integrated science materials. The process to develop the website education are consisted of several steps: (1) content analysis; (2) user analysis; (3) software necessity analysis; (4) hardware necessity analysis; (5) learning materials design; (6) flowchart design; (7) storyboard design; (8) interface construction making; (9) coding construction making. This research method used descriptive method. The experts on content, language, and media/IT evaluated the website education. The questionnaire used the technology acceptance model and five-dimensional interactivity to investigate the readability of science teachers' and students' perception respond. The research subject was 3 science teachers and 31 students on private Junior High School in Bandung. According to the result, the implementation of the website education, generally it has a good evaluation of each aspect. Even though, the website education will be slow to load because of poor signal, so it needs strong signal to access the website education for not taking time consumer.

Keywords: Website Education, Levers in the human body, Five-dimensional interactivity, Technology Acceptance Model (TAM)

**PENGEMBANGAN PEMBELAJARAN BERBASIS WEB
MENGUNAKAN MEDIA INTERAKTIF PEMBELAJARAN IPA UNTUK
TOPIK TUAS DALAM TUBUH MANUSIA**

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ABSTRAK

Kurikulum terintegrasi adalah hal yang populer untuk mengembangkan kemampuan abad ke-21, tetapi banyak materi yang masih ditulis dalam buku secara terpisah. Disisi lain, teknologi pembelajaran berbasis web adalah pembelajaran media online yang bisa diakses kapan saja dan dimana saja. Namun, banyak website pendidikan tidak menerapkan prinsip dari pembelajaran efektif. Lagipula, metode pembelajaran tradisional cenderung membuat bosan siswa. Untuk mengatasi kekurangan ini, studi ini mendesain situs web pendidikan menggunakan konten interaktif untuk membimbing siswa belajar tuas didalam tubuh manusia sebagai salah satu materi ipa terpadu. Proses untuk mengembangkan website pendidikan terdiri dari beberapa langkah: (1) Menganalisa konten; (2) Menganalisa pengguna; (3) Menganalisa penggunaan perangkat lunak; (4) Menganalisa penggunaan perangkat keras; (5) Mendesain materi pembelajaran; (6) Mendesain flowchart; (7) Mendesain storyboard; (8) Membuat konstruksi tampilan; (9) Membuat konstruksi coding. Metode penelitian menggunakan deskriptif method. Ahli dalam konten, bahasa, dan media (IT) mengevaluasi situs web pendidikan. Kuisioner menggunakan model penerimaan teknologi dan lima interaktif dimensi untuk menginvestigasi uji keterbacaan dari respon persepsi guru ipa dan siswa. Subjek penelitian terdiri dari 3 guru ipa dan 31 siswa di Sekolah Menengah Pertama Swasta di Bandung. Berdasarkan hasil dari implementasi situs web pendidikan, secara umum sudah baik dari masing-masing aspek. Walaupun, situs web pendidikan akan lama untuk memuat karena signal yang jelek, jadi itu membutuhkan sinyal yang kuat untuk mengakses situs web pendidikan agar tidak mengkonsumsi waktu lebih.

Kata kunci: Situs web pendidikan, Tuas dalam tubuh manusia, lima interaktif dimensi, model penerimaan teknologi (TAM)

CONTENTS

APPROVAL SHEET	i
DECLARATION	ii
ABSTRACT	iii
CONTENTS	v
REFERENCES	vii
CHAPTER I INTRODUCTION	1
1.1 Background	1
1.2 Research Problem	4
1.3 Research Question	4
1.4 Limitation of Problem	5
1.5 Research Objective	5
1.6 Research Benefits	6
1.7 Organization of Research Paper	7
CHAPTER II LITERATURE REVIEW	8
2.1 Web-Based Learning	8
2.2 The Interactivity of The Website Education	11
2.3 Content Analysis on Integrated Science Topic	15
2.3 Relevant Research	20
CHAPTER III RESEARCH METHODOLOGY	22
3.1 Research Method	22
3.2 Research Design	22
3.3 Research Subject	23
3.4 Operational Definition	23
3.5 Research Instrument	26

3.6 Instrument Validation	34
3.7 Data Collection	34
3.8 Data Analysis Technique	35
3.9 Research Procedure	37
CHAPTER IV RESULT AND DISCUSSION	39
4.1 The Characteristics of The Website Education	39
4.2 The Experts' Judgment Validation of Website Education	47
4.3 The Readability Result of Science Teachers' and Students' Respond	53
CHAPTER V CONCLUSION AND RECOMMENDATION	68
5.1 Conclusion	68
5.2 Recommendation	68
APPENDICES	234

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